

forth. Use of bran in ready-to-eat cereals increases the dietary fiber content and the antioxidant activity of the cereal. In one embodiment, the bran is admixed with sugar, leavening agents (e.g., baking soda, baking powder, etc.) and salt. In another embodiment, the bran is combined with soy to produce various soy products, such as meat-substitute products. In one embodiment, the invention comprises any of the above named end products].

IN THE CLAIMS

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect cancellation of claim 26, amendment of previously pending claims 21-22, 27, 31, 38-42 and addition of new claims 43-59. The specific amendments to individual claims are detailed in the following marked up set of claims.

21. (Amended) A bleached bran product comprising bleached bran derived from a cereal grain, the bleached bran product produced by treating bran with a hydrogen peroxide solution and an aqueous alkaline solution, the bleached bran product having an antioxidant activity at least 15 to 35% higher than native bran and suitable for admixing with whole wheat flour to produce white whole wheat flour having an L value on the Hunter scale of at least about 82.

22. (Amended) The product of claim 21 wherein about five (5)% of the bleached bran product, by weight, is added to the whole wheat flour.

26. (cancelled)

27. (Amended) The product of claim [26] 21 wherein the antioxidant activity is increased due to increased availability of ferulic acid.

31. (Amended) A whole wheat flour [prepared from peroxide-bleached bran] comprising a bleached bran product produced by treating bran derived from a cereal grain with a hydrogen peroxide solution and an aqueous alkaline solution, the bleached bran product having an

antioxidant activity at least 15 to 35% higher than native bran, the whole wheat flour having an L value on the Hunter scale of at least about 82 and a dietary fiber content of about 10 to 12%.

38. (Amended) A bleached bran product comprising bleached bran derived from a cereal grain, the bleached bran product produced by treating bran with a hydrogen peroxide solution and an aqueous alkaline solution, the bleached bran product having an antioxidant activity at least 15 to 35% higher than native bran and suitable for use as an additive in foods.

39. (Amended) The bleached bran product of claim [37] 38 wherein the product is added to foods selected from the group consisting of dry mixes, ready-to-eat cereals and soy.

40. (Amended) A refrigerated uncooked or bakeable dough product comprising bleached bran, the bleached bran produced by treating bran with a hydrogen peroxide solution and an aqueous alkaline solution, the bleached bran having an antioxidant activity at least 15 to 35% higher than native bran.

41. (Amended) A ready-to-eat cereal comprising bleached bran, the bleached bran produced by treating bran with a hydrogen peroxide solution and an aqueous alkaline solution, the bleached bran having an antioxidant activity at least 15 to 35% higher than native bran.

42. (Amended) A cooked cereal dough comprising bleached bran, the bleached bran produced by treating bran with a hydrogen peroxide solution and an aqueous alkaline solution, the bleached bran having an antioxidant activity at least 15 to 35% higher than native bran.

Please add the following new claims.

43. (New) The product of claim 21 wherein the hydrogen peroxide solution has a pH of about 6 to 7 and the aqueous alkaline solution is added in an amount sufficient to raise the pH of the native bran and hydrogen peroxide solution to about 9 to 9.5.

44. (New) The product of claim 43 wherein the hydrogen peroxide solution is an aqueous solution having a concentration of between about 6 and 40%, further wherein the hydrogen peroxide solution is added in amounts of about 1 to 20 parts of hydrogen peroxide solution to about 100 parts of native bran.

45. (New) The product of claim 44 wherein the hydrogen peroxide solution and alkaline solution are heated together with the bran at a temperature of about 80 to 90 °C for about 20 to 60 minutes.

46. (New) The product of claim 44 wherein the hydrogen peroxide solution and alkaline solution are heated together with the bran under a pressure of about 103.4 to 138 kPA (15 to 20 psi) and a temperature of about 120 to 130 °C for about one (1) to five (5) minutes.

47. (New) The product of claim 44 wherein the cereal grain is selected from the group consisting of wheat, rice, barley, corn (maize), oats, triticale, amaranth, soybeans and mixtures thereof.

48. (New) The product of claim 47 wherein the cereal grain is red wheat or white wheat.

49. (New) The product of claim 48 wherein the cereal grain is a soft winter white wheat that is milled to produce a light bran.

50. (New) The product of claim 21 wherein the bleached bran product is comprised of particles, each particle having a particle size of at least about 100 microns.

51. (New) A bleached bran product comprising bleached bran derived from a cereal grain, the bleached bran product produced by first treating bran with a chelating agent to produce reduced transition metal content bran, the reduced transition metal content bran further treated with a hydrogen peroxide solution and an aqueous alkaline solution to produce the bleached bran

Cont
Sub B5
product having an antioxidant activity at least 15 to 35% higher than native bran.

52. (New) The product of claim 51 wherein the chelating agent is selected from the group consisting of orthophosphate, metaphosphate, pyrophosphate, polyphosphate, calcium EDTA and sodium EDTA.

53. (New) The product of claim 52 wherein the chelating agent is calcium EDTA or sodium EDTA in a concentration of between about 0.02 and 0.1%.

54. (New) The product of claim 51 wherein the reduced transition metal content bran is blanched to inactivate catalase and peroxidase enzymatic systems.

55. (New) The product of claim 54 wherein the reduced transition metal content bran is blanched at a temperature of between about 75 to 85 °C for about three (3) to ten (10) minutes, further wherein the residual enzyme activity after blanching is below about 10 CIU/g bran.

Sub B6
56. (New) The product of claim 51 wherein the bleached bran product is treated with catalase to remove residual hydrogen peroxide

57. (New) The product of claim 56 wherein between about 0.1 and 0.4% of catalase, by weight, is added to the bleached bran product at a temperature of about 60 °C, further wherein the hydrogen peroxide concentration is reduced to less than about five (5) PPM following catalase treatment.

Sub B7
58. (New) A bleached bran product comprising bran derived from a cereal grain, the bran bleached with ozone or peracetic acid in the presence of heat to produce the bleached bran product.

59. (New) The product of claim 58 wherein the bran is bleached using a combination of hydrogen peroxide and ozone treatments.